SUPREME COURT OF THE UNITED STATES.

No. 48.—October Term, 1930.

American Fruit Growers, Inc., Petitioner, *vs.* Brogdex Company. | On Writ of Certiorari to the United States Circuit Court of Appeals for the Third Circuit.

[March 2, 1931.]

Mr. Justice McReynolds delivered the opinion of the Court.

The Brogdex Company, present owner of United States Letters Patent No. 1,529,461, relating to "certain new and useful improvements in the art of preparing fresh fruit for market", applied for August 13, 1923, and issued to Brogden and Trowbridge March 10, 1925; presented its bill of complaint to the District Court for Delaware April 15, 1926, wherein it charged that the defendant (petitioner here), the American Fruit Growers, Inc., had infringed and asked an injunction, accounting, damages, etc. It relied upon Claims Nos. 1, 2, 3, 4, 5, 6, 7, 9, 14, 15, 16, 17 and 18 which describe the process of treatment, also Nos. 23, 24, 25 and 26, which concern the product.

Both courts below held all of these claims valid and infringed; and directed that petitioner be enjoined from using any process therein specified, also from manufacturing, selling, or using "treated fruit embodying and containing the invention described in said letters patent and secured by any of said [product] claims."

Of the process claims, the following is characteristic—

"3. In the preparation of fresh fruit for market, the process which comprises subjecting fruit to the action of an aqueous solution of borax, the fluidity, strength and temperature of the treating solution, and the duration of the treatment, being such that exposed rind or skin tissues of the fruit are effectively impregnated with borax and rendered resistant to blue mold decay, while at the same time the fruit is not scalded nor is its freshness or edibility otherwise substantially impaired."

The following is typical of the product claims—

"26. Fresh citrus fruit of which the rind or skin carries borax in amount that is very small but sufficient to render the fruit resistant to blue mold decay."

"The claim of a patent must always be explained by and read in connection with the specification." *Carnegie Steel Co.* v. *Cambria Iron Co.*, 185 U. S. 403, 432.

The specification in respect of the patent states—

"This invention relates to art of preparing fresh fruit for market; and in particular it relates to processes for the treatment of citrus and other fruits in such manner that the development of molds and the like upon the fruit, and especially the development of blue mold and infection by blue mold spores, is prevented or arrested either wholly or to such large extent as greatly to prolong the marketable life of the fruit beyond what has been possible heretofore; the complete treatment most desirably also including a step of providing the fruit with a very thin film-like coating of protective material comprising a waxy substance such as paraffin; all as will more fully hereinafter appear.

"The greatest present utility of the invention is in the treatment of citrus fruits such as oranges, grapefruit, lemons, tangerines, etc.; also apples and other fruits that are attacked by blue mold or the like. The invention is broad, however, and the term fruit as herein employed is to be understood as not necessarily restricted to fruit in the sense in which the word is usually employed, but is to be understood broadly as including not only fruit proper but also vegetables, such as tomatoes or the like, that can be treated to advantage in accordance with the principles of the invention to be hereinafter set forth.

"For the sake of a concrete example whereby the principles of the invention may be illustrated and explained, reference will be made hereinafter more particularly to the treatment of citrus fruit, especially oranges and lemons, which are especially subject to attack and destruction by blue mold. It is a well-known fact that a large part of the losses from decay in the marketing of various fruits, such as citrus fruits and apples, is attributable directly to the action of blue mold. The prob-

lem of how to suppress or control blue mold development on fruits has been the subject of extensive and careful investigation, but admittedly no thoroughly satisfactory solution of the problem has heretofore been offered. In spite of elaborate precautions taken in the handling and transportation of fruits to market, it is not uncommon for shipments of oranges and the like to arrive at marketing points showing in some cases as much as 30 to 40 per cent decay directly attributable to blue mold. The various investigations of the subject have shown that while blue mold does not ordinarily attack perfectly sound fruit that is free from bruises, cuts, thorn-pricks or punctures, the slightest surface cut or scratch affords a point of attack by providing lodgment for blue mold spores which develop with great rapidity and soon bring about complete destruction of the infected fruit. . . .

"The present applicants have discovered that by proper treatment of the fruit in the packing house it is possible to greatly reduce, and often to absolutely prevent, the growth or development of blue mold on fruit for long periods of time, and thus to materially lessen or even eliminate the heretofore unavoidable losses from decay. Moreover, it is possible to achieve these results without upsetting or greatly changing present practice so far as concerns the mechanical handling of fruit in packing houses of the modern type. Thorough practical tests of the novel processes have demonstrated conclusively that, by proceeding in accordance with the invention, blue mold development can be arrested, and fruit can be rendered immune to attack by blue mold spores, in a simple and effective manner without affecting the freshness and flavor of the fruit, the marketable life of the fruit being thus prolonged far beyond that of untreated fruit. In view of the well known persistent activity of blue mold spores even under conditions fatal to the parent mold, the importance of this achievement is obvious. In general, the process of the invention involves applying to the fruit a mold-inhibiting reagent comprising the boric acid radical, said compound being most desirably alkaline in reaction and being employed in concentration effective to render the surface of the fruit unfavorable as a medium for blue mold development. Ordinary

borax ($Na_1B_4O_7+10H_2O$) has been found after extensive investigation, to be especially potent in its retarding and inhibiting action in this connection, and this substance is considered at present to be the most desirable to employ in practicing the invention. A water solution of borax is alkaline in reaction, but is without corrosive or other deteriorating action upon fruit to which it is applied. Boric acid is not so effective as a mold-retarder as is borax; but compounds of boron, whether acid or alkaline, appear to have a specific inhibiting action upon blue mold; and hence it is not desired to limit the invention, so far as concerns compounds of boron, to the employment of an alkaline treating solution.

"The method of applying the treating solution to the fruit may assume various specifically different forms, the precise details of procedure being not essential to the invention in its broader aspects. However, where it is desirable, as may often be the case, to carry out the process without changing prior practice any more than is strictly necessary, the application of the mold-retarding agent may be effected as a part of or in conjunction with the usual washing operation to which the fruit is initially subjected in its handling according to modern packing house methods, especially as most of the mold-retarding agents herein contemplated also have excellent cleansing or detergent properties. Accordingly, in the practice of the invention, the mold-retarding agent, borax in a specific instance, may be added in proper mold-inhibiting quantity directly to the wash water in the usual soaking tank into which the fruit is dumped from the field boxes as it comes from the groves. . . .

"From this point on, the handling of the fruit in further preparation for boxing and shipment may or may not involve additional preservative treatment in accordance with the principles of the invention. This depends upon whether or not the fruit is to receive an application of protective coating material for the purpose of preventing or reducing shrinkage and withering and of ensuring conservation of the original freshness and flavor of the fruit for prolonged periods of time. Generally this further treatment is highly desirable, and if the benefits of the invention are to be realized to the fullest extent, this further treatment should be carried out. It con-

sists in applying to the fruit a normally solid protective material, especially paraffin or like waxy material, in such condition that it can be spread all over the surface of the fruit to produce an extremely thin protective film which is not noticeable except by the expert eye and does not interfere with the so-called breathing or transpiration of the fruit to an undesirable extent, but which is effective to conserve the original plumpness and freshness of the fruit as above stated. . . .

"In the foregoing disclosure of the principles of the invention, reference has been made more particularly to blue mold as a source or cause of decay. Such reference to blue mold is to be taken, not as restrictive, but as generic and as intended, both in the specification and in the claims, to cover not only blue mold but all kindred rot and decay organisms and diseases generally amenable to treatment in accordance with the invention, to which fruit is or may be susceptible and by which it may be damaged under the conditions prevailing in packing and marketing. . . ."

Petitioner admits ownership of plants which pack and sell citrus fruits and that when preparing these for market it caused them to be dipped in a borax solution in order to prevent or retard decay incident to growth of blue mold. Under the treatment applied the raw fruit is immersed in a cold or warm solution of borax or boric acid, permitted to remain until thoroughly wet, then rinsed, dryed and brushed. Infringement is admitted, if the patent is valid.

In defense petitioner maintains that the product claims of the patent fail to describe an article of manufacture within the meaning of the statute. Also that the process claims are invalid for various reasons, among them anticipation by United States Letters Patent No. 683,899, issued October 8, 1901, upon application of Simeon Bishop.

Is an orange, the rind of which has become impregnated with borax, through immersion in a solution and thereby rendered resistant to blue mold decay, a "manufacture", or manufactured article, within the meaning of Sec. 31, Title 35, U. S. Code?

"Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, not known or used by others in this country, before his invention or dis-

covery thereof, and not patented . . . may . . . obtain a patent therefor."

Answering affirmatively the Circuit Court of Appeals said: "The product claims define an article of manufacture, since the fruit is the result of a process which is defined and described and not a natural product. The product is a combination of the natural fruit and a boric compound carried by the rind or skin in an amount sufficient to render the fruit resistant to decay. The complete article is not found in nature and is thus an article of manufacture. *Riter-Conley Mfg. Co.* v. *Aiken, et al.*, 203 Fed. 609."

This position, we think, is not tenable.

"Manufacture", as well defined by the Century Dictionary, is "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." Also "anything made for use from raw or prepared materials."

Addition of borax to the rind of natural fruit does not produce from the raw material an article for use which possesses a new or distinctive form, quality, or property. The added substance only protects the natural article against deterioration by inhibiting development of extraneous spores upon the rind. There is no change in the name, appearance, or general character of the fruit. It remains a fresh orange fit only for the same beneficial uses as theretofore.

In *Hartranft* v. *Wiegmann*, 121 U. S. 609, 613, 615, this Court considered the meaning of the words "manufactures of shells" and held that "cleaning off the outer layer of the shell by acid, and then grinding off the second layer by an emery wheel, so as to expose the brilliant inner layer," did not convert it into a manufacture. "The shells in question here were not manufactured, and were not manufactures of shells, within the sense of the statute imposing a duty of 35 per centum upon such manufactures, but were shells not manufactured, and fell under that designation in the free list. They were still shells. They had not been manufactured into a new and different article, having a distinctive name, character or use from that of a shell. The application of labor to an article, either by hand or by mechanism, does not make the article necessarily a manufactured article, within the meaning of that term as used in the tariff laws. Washing and scouring wool does not make the resulting wool a manufacture of wool. Clean-

ing and ginning cotton does not make the resulting cotton a manufacture of cotton."

And in *Anheuser-Busch Assn.* v. *United States,* 207 U. S. 556, 562, where it was claimed that corks for bottles which had undergone special treatment after importation thereby became articles manufactured in the United States, this Court said: "Manufacture implies a change, but every change is not manufacture, and yet every change in an article is the result of treatment, labor and manipulation. But something more is necessary, as set forth and illustrated in *Hartranft* v. *Wiegmann,* 121 U. S. 609. There must be transformation; a new and different article must emerge 'having a distinctive name, character or use.'"

If it be assumed that the process claims under consideration cover an invention, we think this lacked novelty when application was made for the patent, August 13, 1923. The underlying conception had been adequately revealed in Bishop's Patent of 1901. He claimed—

"1. The method of treating articles of food to preserve and enhance their value, which consists in washing them with a solution of boracic acid and then applying a coating of gelatin, substantially as described.

"2. The method of treating articles of food to preserve and enhance their value, which consists in washing them with a solution of boracic acid and then applying a coating of gelatin, and finally wrapping the article in tissue paper which has been impregnated with a solution of boracic acid, substantially as specified."

And in the specification he affirmed—

"This invention aims to prolong the period of usefulness of fruit, vegetables, eggs, and the like as articles of food and prevent their usual rapid decay and deterioration, thereby benefiting the grower, the shipper, the merchant, and the consumer.

"The invention consists in subjecting the article of food to an antiseptic bath to purify, cleanse, and kill all germs, then treating it to a coat of air-excluding material. This process not only preserves the articles of food, but enhances its value. . . .

"The application of boracic acid is advantageous in that it prevents decay and adds to the appearance of the article and

is perfectly harmless to the human system. The gelatin, besides excluding the air, also adds to the appearance of the article. . . . ''

That boracic (boric) acid—a weak acid—and borax, with an alkaline reaction, inhibit the rapid development of blue mold has long been known. Both are compounds of boron and contain the ''boric acid radical''. Their antiseptic quality is due to the presence of that element. For present purposes, the two must be regarded as equivalents and the mere substitution of one for the other would not involve invention or avoid infringement. Walker on Patents, 6th Ed., Sec. 426.

Read together the claims and specification of the Bishop patent show that he intended it should have wide application and cover treatment of citrus, as well as other, fruits. He distinctly states the application of boracic acid prevents the usual rapid decay, and upon this basic fact respondent endeavors to support the patent in suit.

True, Bishop proposed as a secondary step the application of gelatine which he averred would exclude the air and enhance the appearance of the article. But Brogden and Trowbridge also said in their specification that ''if the benefits of the invention are to be realized to the fullest extent,'' the fruit after being soaked should receive an application of protective coating material, such as paraffin, or like waxy material. If the claims of the patent in suit are valid, one operating under the process described by Bishop would infringe—and considering the circumstances here disclosed, that is enough to show invalidity of the later patent. *Knapp* v. *Morss*, 150 U. S. 221, 228. It lacks novelty. The substance of its disclosures had been revealed by Bishop twenty years earlier. *Setwall* v. *Jones*, 91 U. S. 171, 182, *et seq.*

Reversed.

A true copy.

Test:

Clerk, Supreme Court, U. S.